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MMPA Bulletin

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SPECIAL ISSUE
Commemorating the 30th Anniversary of the Marine Mammal Protection Act (1972-2002)

Passage of the Marine Mammal Protection Act of 1972

When the U.S. Marine Mammal Protection Act was passed in 1972 (MMPA; U.S.C. 1361 *et seq.*), it was a landmark statute that not only increased protection for our nation's marine mammals, but also signified a change from traditional marine wildlife management. The MMPA made federal agencies responsible for primary management of these species and for maintaining marine mammals as viable elements of their marine ecosystems, rather than simply managing species for their commercial and recreational value. The MMPA also embraced the precautionary principle, which essentially requires conservative action on issues where there is scientific uncertainty but suspected harm. Perhaps most importantly of all, the MMPA recognized the importance of an ecosystem approach as a critical element in achieving species protection– a first for marine environmental laws. By protecting the health of an ecosystem and its components, management of target species would be more effective and sustainable in the long-term.

But what specifically led to the creation of the MMPA? What was the impetus behind the legislation and what motivated its passage? A celebration of 30 years of its success warrants a look into its origins.

Prior to passage of the MMPA, living marine resource management generally focused on the commercial and recreational value of marine species, a practice that often resulted in overharvesting. By the late 1960s, these practices contributed to serious depletions of large whale species from whaling. In addition, other marine mammals like fur seals, harp seals, polar bears, otters and manatees were also in decline due to overharvesting and other factors such as vessel strikes. It was clear that existing activities were putting marine mammal populations at risk and in need of more protection.

In the early 1970s, an era of heightened environmental awareness, public interest in marine mammal protection also grew as media attention focused on two specfic events– harp seal hunts in Canada and dolphin entanglement in the Eastern Tropical Pacific tuna purse seine fishery. Video footage of these events made national news, and the public responded. This heightened public awareness that large numbers of marine mammals were vulnerable to death and/or serious injury led to an unprecedented number of letters and phone calls to Congress from concerned constituents, something Congress had not seen since the Vietnam War. Congress was moved into action.

COVER STORY

During 1971-1972, approximately 10 bills were introduced into the House of Representatives and Senate to provide protection for our nation's marine mammals. Some called for the humane treatment of marine mammals through a moratorium on the taking or importing of all marine mammals. Others proposed allowing the harvesting of all marine mammals at their Maximum Sustainable Yield, while providing an exemption to certain industries. With all of these bills, it was clear that Congress wanted to support increased marine mammal protection. Ultimately, the House Committee approved a marine mammal protection bill, and it was sent to the House floor for a vote. However, there was opposition to this House Committee approved bill, and it was ultimately defeated on the House floor.

By the end of 1971, no one bill seemed to be able to address the full spectrum of marine mammal protection needs. However, one key official in the Nixon Administration was determined to improve marine mammal protection and, at the same time, change the traditional paradigm of marine mammal management. Lee Talbot, Ph.D., an ecologist specializing in natural resource management and international environmental affairs, was serving as Senior Scientist and Director of International Affairs for the President's Council on Environmental Quality in Washington, D.C. For a long period of time, Dr. Talbot had been concerned with the management of living wild resources with a special interest in marine mammals. In order to create change in traditional management methods and promote more sustainable resource management, Dr. Talbot was seeking to introduce a series of new principles into national legislation. He saw the recent attempts in Congress to pass marine mammal protection legislation and the heightened public interest in marine mammal conservation as a window of opportunity for improving living marine resource management and marine mammal protection.

Dr. Talbot recognized the need to first propose this new legislation to the Nixon Administration as a means to advance a national agenda for sustainable principles of living marine resource management. This marine mammal protection legislation would be based on sound science and include real conservation measures. It would provide a forum for advancing wildlife management of a group of species well-supported by the environmental lobby and the American public. Dr. Talbot's first step was to visit with John Whitaker, Deputy Assistant to the President for Natural Resources, to get support for the idea of this new legislation as well as the political, economic and environmental benefits such legislation would provide the Nixon Administration, Congress and the American people. After the meeting, Mr. Whitaker lent his support and Dr. Talbot set off to draft an Administration bill for marine mammal protection.

Dr. Talbot's objectives were clear. The Administration bill would include: (1) a statement of national policy for new national management; (2) a statement on the value of marine mammals to the public from not only an economic but also esthetic and recreational point of view; (3) the maintenance of healthy and stable ecosystems vital to marine mammals; (4) the movement of the burden of proof from the scientists to those harvesting marine mammals; (5) a list of actions detrimental to marine mammals; and (6) an emphasis on management based on the best available, sound science. In addition, the Administration bill would establish the Marine Mammal Commission (MMC), an independent committee with oversight of the Federal agencies mandated to administer marine mammal protection. The MMC priorities would also include supporting research and independently monitoring marine mammal populations. Within the MMC, a scientific advisory committee of scientists with marine mammal expertise would provide recommendations to the Federal agencies on management actions. The bill proposed that the MMC's recommendations would be available to the public. Finally, should an agency choose not to follow the MMC's recommendations, that agency would need to disclose the reasons for that decision to the public.

Debate over the draft bill's contents continued as the bill made its way through the Office of Management and Budget (OMB) for comments and input from Federal agencies. After this stage, the draft bill was

[continued on pages 14 and 15]

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Rescue, Rehabilitation and Release of a Wild Orphaned Killer Whale Calf in the Pacific

NOAA Fisheries, in cooperation with Canada's Department of Fisheries and Oceans, the Vancouver Aquarium and whale advocates in Washington State, rescued an orphaned killer whale calf this summer who was separated from her natal pod and living outside her home range. The two-year old female calf, known as A73 for her birth order in the Northern resident A pod from Canada, had been seen alone in Puget Sound for several months and her mother was presumed dead. She interacted with vessels and began a pattern of following a local ferry between Vashon Island and Seattle. NOAA Fisheries convened an expert advisory panel to investigate the situation. Scientists assessed her medical condition and her close interactions with vessels in the area. The panel recommended that rescue and reintroduction to her home waters represented A73's best chance for reunion with her natal pod and long-term survival in the wild. On May 24, 2002, NOAA Fisheries announced its decision to intervene based on concerns about the health and safety of the animal and for boaters using Puget Sound.

NOAA Fisheries assembled and led a team of experienced researchers, husbandry personnel and veterinarians to plan and conduct the rescue. The team held several practice sessions with A73 to familiarize her with the boat, people and equipment that would be used during the rescue. On June 14th, the team safely rescued A73 by slipping a soft rope around her tail, positioning her in a sling, and lifting her by crane onto a barge for transport to a NOAA Facility near Seattle. During transport, the team conducted a full health assessment, took medical samples and measurements. A73 weighed in at 1,240 pounds and was 11 feet long, which was a bit small for her age.

A73 breaches in rehab pen
photo: L. Barre, NOAA Fisheries

The team placed her in a floating net pen (40'x40') and monitored her 24 hours a day. She adjusted quickly to her new surroundings and exhibited a variety of behaviors seen in wild killer whales, including tail slapping, breaching and spyhopping. Although observers were always present, it was important to limit the whale's direct interactions with people so she would not be tempted to seek the attention from people instead of other whales following her release back to the wild. The husbandry team remotely monitored her behavior and vocalizations using above- and under- water video cameras and hydrophones.

The husbandry team fed her live salmon through a 50 foot tube so that she would not associate humans with food. She ate about 50-60 pounds of fish per day and gained about 150 pounds during her rehabilitation. The veterinarians determined that she was slightly under nourished and had a minor parasitic and bacterial infection. They examined her weekly taking various blood and diagnostic samples and treated her for parasites and infection. She responded well and the medical team cleared her for transport to Canada about a month following her rescue.

A local boat builder (Nichols Brothers) donated his high-speed passenger ferry to transport A73 to Canada. On July 13th, the team hoisted A73 by crane into a wet-transport box secured on the back deck of the vessel. The team monitored her continuously during the ten hour trip to northern Vancouver Island. She arrived safe and sound and the team transferred her into a floating net pen in Dong Chong Bay, Hanson Island, B.C. The pen was located within the home range of A73's pod where she could hear the whales in the Johnstone Strait area. Throughout the night, A73 responded to the calls of other whales in the area. The team released her the next day when a related pod of whales swam by the mouth of the bay. She was fitted with several suction cup tags and released from the pen so that she could join the group. This was the first interaction with other killer whales in many months, but it was short and they soon moved on without her.

A73 moved to barge
photo: L. Barre, NOAA Fisheries

During her first days back in her native waters, the researchers tracked A73's location and watched as she interacted with whales as well as with nearby vessels. Fortunately, local boaters heeded the advice to keep their distance and give A73 plenty of room to interact with her own kind. A network of researchers and whale watch boats in the area have continued to monitor her status and she has been sighted many times. She appears to have ended her fascination with boats and instead has been moving in and out of the area with other whales, feeding on her own and thriving. The rescue team is optimistic that she will continue do well and hope to see her next summer when her pod returns to hunt for salmon and rub on the rocks in Johnstone Strait.

This rescue and reintroduction effort was made possible by contributions of time, services and supplies from Federal and State agencies, zoos and aquaria, private industry and individuals, whale advocacy organizations, and through emergency funding from the Prescott Marine Mammal Rescue Assistance Grant Program.

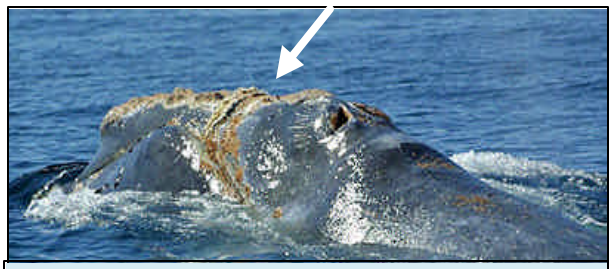
Recent Success Story: Right Whale Disentangled in 2001 and Seen One Year Later Alive and Well

On July 20, 2001, a seven year old male right whale was reported entangled 30 miles east of Portsmouth, New Hampshire in an area known as Jeffrey's Ledge. Two whale watch vessels reported it to NOAA and remained near the whale until the Center for Coastal Studies (CCS) staff arrived on scene to assess the situation. CCS found that a line was wound tightly around the animal's rostrum with ends trailing down the sides of the whale and a partially deflated balloon buoy attached to one of the lines. CCS also reported seeing scars on the whale's tail stock that indicated additional entanglement. On July 21, 2001, trained staff from CCS, under the direction of NOAA Fisheries, successfully removed the fishing gear and balloon buoy. Although the gear was removed the remaining wounds were serious and raised concerns about the whale's chances for survival. The CCS team, however, reassessed the whale one week later and reported that his wounds appeared to be healing.

This year the whale was seen in August 2002 in the Bay of Fundy and photographed by researchers from the Woods Hole Oceanographic Institution. One year following the disentanglement, researchers reported that the whale remained free from gear and appeared to be doing well.

Efforts to Disentangle a North Atlantic Right Whale Named "Churchill"

In recent years, the plight of entangled whales has become well publicized, none more than the Northern right whale *(Eubalaena glacialis)* #1102, otherwise known as "Churchill." This 50 ton adult male was first spotted entangled on June 8, 2001 by a NOAA aerial survey team off Cape Cod, Massachusetts. The whale was observed with marine line embedded in his upper jaw with the ends of the line trailing from the mouth. The next day the rescue team attached a small telemetry buoy to one of the entangling lines trailing behind him. Transmissions from the buoy allowed researchers to track Churchill as he traveled over 4,000 miles in the next three months. Churchill moved from the Gulf of Maine into Canadian waters along the Southeasterly edge of Nova Scotia, around Cape Breton, into the Gulf of St. Lawrence, southerly across the Scotian shelf, back into U.S. waters, and eventually into Northern right whale critical habitat off Cape Cod. During this time, Churchill's condition declined. He changed from mottled gray in color to ghostly white and from robust to emaciated. Scientists reported seeing infected wounds from the entanglement and skin parasites. Several institutions, state and Federal agencies, private laboratories and aquaria, universities and private companies collaborated on efforts to rescue Churchill.



arrow notes area of whale lice and infection on Churchill's head where fishing line is deeply embedded, photo: Center for Coastal Studies

During the 100 days that Churchill was tracked, six rescue attempts were made as location and weather conditions permitted. Although none of these attempts were successful in removing the embedded line, the effort contributed significantly to the refinement of disentanglement techniques. Dr. Teri Rowles, head of NOAA Fisheries' Marine Mammal Health and Stranding Response Program and lead veterinarian, stated that the rescue team was "able to successfully deliver medication to a free-swimming large whale in the open ocean and was able to achieve measurable sedation that did not endanger the animal." With the telemetry buoy attached, the whale was continuously tracked longer than any other adult male from this population. Dr. Rowles stated that "these are notable accomplishments that will allow us to help other ailing and injured large whales in the future." Churchill was last seen by a U.S. Coast Guard falcon jet during Labor Day weekend 2001. A few weeks later, on September 16th, the satellite telemetry signal stopped, suggesting that the transmitter had been damaged, malfunctioned or Churchill finally succumbed to his wounds and sank below the surface pulling the buoy with him. The last signal was from a point 460 miles east of Cape May, New Jersey in an area with a water depth of 15,000 feet. Although Churchill's story may not appear to have a happy ending, the disentanglement techniques used with Churchill, including successful sedation of a free-swimming whale, will be used to safely free whales in the future. The reach of Churchill's story to the general public was far and has fostered increased community assistance in reporting entanglements and contributing to rescue efforts. With each attempt to disentangle a right whale, or other species like humpback whales, we learn more about the causes of entanglement. With this knowledge, our goal is to help prevent entanglements and assist the recovery of endangered species.

For more information, visit the Center for Coastal Studies website at:
www.coastalstudies.org/rescue/index.htm

RESEARCH

NOAA FISHERIES HEARS FROM STAKEHOLDERS

In the spirit of cooperation, stakeholders in marine mammal conservation issues are given the opportunity to use the MMPA Bulletin as a forum to express their views about working toward common goals. Guest authors from other government agencies, industry or conservation groups may contribute, and letters written to NOAA Fisheries from the general public may also appear. The views expressed by the guest authors are solely their own and do not necessarily reflect NOAA Fisheries' positions or policies.

Hawaiian monk seal with CRITTERCAM photo: National Geographic

National Geographic's Crittercam Aids in Researching Habitat Needs of the Endangered Hawaiian Monk Seal

submitted by Kyler Abernathy, NGT

In 1995, the Protected Species Investigation at the NOAA Fisheries' Honolulu laboratory contacted Greg Marshall at National Geographic Television (NGT) to request use of Crittercam to assist in investigations of monk seal foraging ecology at French Frigate Shoals atoll (FFS). This population had been in serious decline for several years and information critical to addressing the problem was lacking.

Video from the collaborative work challenged many of the assumptions held about monk seal foraging. Crittercam data revealed that the seals largely ignored the shallow, near-shore reefs and headed out to deeper water to forage. Instead of chasing meaty fish that are the most appealing from a human viewpoint they intently searched the ocean bottom in a variety of habitats, capturing small fish and eels by rooting them out of the sand or overturning rocks and coral heads where prey had taken shelter. Monk seals were seen to forage both day and night. With Crittercam, researchers were able to identify particular habitats and specific features of habitats, such as bulk talus fields and patches of black coral whips that seals appear to target while foraging. The information redefined our understanding of what comprises important foraging habitat for the species. Over 4 years, 34 deployments on adults were conducted providing enough data to draw conclusions with good statistical confidence. This ongoing work will be used to continually revise management efforts to enhance monk seal recovery.

Crittercam also revealed other aspects of monk seal behavior including sleeping in underwater caves, possible patrolling of near-shore territories, amazingly persistent following of female seals by males and equally persistent harassment of juveniles.

But other questions remained. As a group, juvenile monk seals at FFS were most strongly affected by whatever was happening at this atoll. Survival rates of juveniles had dropped more drastically than any other demographic group. Uncertainty remained as to whether these juveniles used the same habitats and methods of foraging as the adults. However, the Crittercams used on the adults were too large for the juveniles to carry.

With advances in video technology, and generous financial support from the National Fish and Wildlife Foundation, we were able to develop a much smaller system, suitable for young seals. Just a few weeks ago, the field team returned from FFS where these smaller units were deployed for the first time. The effort was a great success, with nine deployments yielding spectacular video of these young seals exploring their submarine world. The video showed juveniles attempting to emulate the previously documented adult foraging techniques - some successful, some not. More detailed analysis of this bounty of information is ongoing.

The Crittercam collaboration between NGT's Remote Imaging and NOAA Fisheries has been a spectacular success. Crittercam has become an essential tool to address the environmental stresses that confront the monk seals at FFS, as well as presenting an abundance of insights into previously shrouded aspects of monk seal behavioral ecology. While we have had many successful research collaborations and look forward to many more to come, the Hawaiian monk seal project remains one of the proudest accomplishments of our program.

National Geographic's Crittercam is an animal-borne, microprocessor-controlled imaging and data logging system developed to provide a direct, vital record of animal behavior - with associated environmental data - not normally observable by humans. Crittercam is the flagship of Greg Marshall's Remote Imaging program at NGT, whose mission is to develop novel imaging systems to support biological research.

www.nationalgeographic.com/crittercam/

INTERNATIONAL

54th Annual Meeting of the International Whaling Commission

The International Whaling Commission (IWC) is the international body responsible for the conservation and management of all great whales. Due to severe overhunting by many nations, a moratorium on commercial hunting was implemented in 1986 and remains in place today. However, Japan conducts lethal scientific whaling of up to 700 whales a year, and Norway continues a commercial hunt with a reservation to the moratorium despite protests from IWC member countries. Aboriginal subsistence whaling by native groups is conducted in four countries: Denmark, Russia, St. Vincent and The Grenadines, and the United States. Shimonoseki, Japan was the site of the 54th Annual Meeting of the IWC which was held from May 20-24, 2002. Major issues raised at the meeting included the following:

Japan's Lethal Scientific Research Whaling Program has been conducted for the past 14 years in the North Pacific and the Antarctic. Approximately 700 whales are taken annually- 440 minke whales in the Antarctic, and 260 minke, Bryde's, sperm and sei whales in the North Pacific. In 2002, Japan expanded their North Pacific Program to include 50 sei whales and 50 coastal minke whales for their small-type catcher boats.

As in previous years, Japan requested a quota of 50 minke whales to be taken by coastal community-based whalers. However, this request failed to receive enough votes to pass. The U.S. could not support the request due to the hunt's proposed commercial elements and scientific uncertainty with regard to that stock of minke whales. At a special meeting in October, Japan proposed a resolution to urge the Commission to consider a quota of minke whales for its coastal villages. The U.S. supported this resolution because it specifically stated that any quota must be consistent with the moratorium and that any future quota must be based upon the advice of the IWC Scientific Committee. However, the resolution failed to receive enough votes to pass.

Iceland's Request for Membership with a reservation to the commercial whaling moratorium has been sought for the past two years. At both annual meetings, the requests failed to receive enough votes to pass until a special October meeting where Iceland succeeded in gaining membership with a reservation. The U.S. voted in opposition to allowing Iceland to join with a reservation.

Aboriginal Subsistence Bowhead Whale Quota for Alaskan Eskimos and Russian Chukotka natives failed to receive enough votes to pass due to a blocking group led by Japan. While the bowhead whale quota was put to a vote and failed, all other aboriginal subsistence quotas, including the gray whale quota for the Makah Tribe of Washington State, were approved by consensus.

High level communications with Japan immediately after the meeting resulted in confirmation that Japan would not block a renewed quota request, nor would they lobby against such a request. Subsequently, the U.S. requested a special meeting that was held in October in Cambridge, United Kingdom. At this meeting, the IWC adopted by consensus a five-year quota (from 2003-2007) for bowhead whales for the Alaskan Eskimos and Chukotka Natives.

Effort to complete a Revised Management Scheme (RMS) continued. The RMS is the management system, comprised of observation and inspection components, that would govern commercial whaling if it is ever resumed. Two RMS proposals, one by Japan and the other by Sweden, were put forward at the annual meeting. However, neither garnered the sufficient votes to pass.

For more information on the International Whaling Commission, visit: *www.iwcoffice.org*

NOAA Fisheries Prepares to Make the Final Dolphin-Safe Finding

In the 1950s, fishermen discovered that yellowfin tuna in the Eastern Tropical Pacific ocean (ETP) aggregated beneath schools of dolphin stocks. Since that discovery, the predominant tuna fishing method in the ETP has been to encircle schools of dolphins with a fishing net to capture the tuna concentrated below. Hundreds of thousands of dolphins died in the early years of this fishery. Overall, dolphin mortality in the Eastern Tropical Pacific tuna purse seine industry has dropped from 260,000 animals in 1971 to 1,636 animals in 2000. This reduction in dolphin mortality is due to international cooperation and the efforts of fishers employing dolphin saving fishing techniques. The Marine Mammal Protection Act (MMPA) is also largely responsible for this dramatic decrease.

Over the past 30 years, the MMPA has not only improved fishing techniques but also fostered international agreements and cooperation with the aim of greatly reducing dolphin mortality in the tuna purse seine fishery in the ETP. Although dolphin mortality caused by the tuna purse seine fishery in the ETP has declined dramatically in recent years, there is still concern that the act of chasing and encircling dolphins during normal fishing operations could be impeding the recovery of two dolphin stocks currently listed as depleted under the MMPA. These are the Northeastern offshore spotted dolphin (*Stenella attenuata*) and Eastern spinner dolphin (*Stenella longirostris orientalis*). In addition, there are concerns that the coastal spotted dolphin (*Stenella attenuata graffmani*) may also be affected by these fishing methods.

In 1997, Congress amended the MMPA and the Dolphin Protection Consumer Information Act with the International Dolphin Conservation Program Act, to require the Secretary of Commerce to conduct specified scientific research and make a determination as to whether the intentional deployment on or encirclement of dolphins with purse seine nets is having a "significant adverse impact" on any depleted dolphin stock in the ETP. This determination must be based on results of the research as well as information obtained under the International Dolphin Conservation Program and any other relevant information. This decision in turn will determine the future of tuna labeled as 'dolphin safe.'

Current definition - Tuna is considered "dolphin-safe" if it was harvested without the intentional deployment on or encirclement of dolphins during the trip on which the tuna was caught, and if no dolphins were killed or seriously injured in the sets in which the tuna was caught.

Possible new definition - Tuna would be considered "dolphin-safe" if it was harvested in a set in which no dolphins were killed or seriously injured.

To provide the necessary scientific data to assist in the Secretary's finding, NOAA Fisheries has recently finished four years of mandated research focused on the impacts of setting purse seine nets on or around dolphins in the ETP. This research included three years of dolphin abundance surveys, calculation of mortality estimates based on observer data, a review of scientific literature on stress in marine mammals, completion of a necropsy study of dolphins killed in the fishery, a review of historical demographic and biological data related to dolphins involved in the fishery, and completion of a dolphin chase-recapture experiment. In addition, an analysis was completed of the variability in the biological and physical parameters of the ETP ecosystem over time.

On August 23, 2002, NOAA Fisheries published a final Organized Decision Process (ODP) in the *Federal Register* (67 FR 54633) to provide guidance to the Secretary in making the final finding. In addition, two expert panels, the Ecosystem Expert Panel, and the Indirect Effects Panel met September 4-6, 2002 in La Jolla, California. The expert panels assessed the peer-reviewed scientific studies and other information and individually provided scientific advice to address specific issues the Secretary of Commerce will be considering in making a final finding. The Secretary is required to make a final finding by December 31, 2002.

For additional information on the Tuna/Dolphin issue and Dolphin-Safe Final Finding, contact the Office of Protected Resources or visit the NOAA Fisheries Tuna/Dolphin Program website at:

www.nmfs.noaa.gov/prot_res/tuna_dolphin/tunadolphin.html

COLLABORATION

NOAA's Hawaiian Islands Humpback Whale National Marine Sanctuary Aids in Humpback Whale Research

David Mattila, previously senior scientist and director of the Center for Coastal Studies' (CCS) humpback whale program in Provincetown, Massachusetts, spent five-months as the consulting research director at the NOAA Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS). The following interview is reprinted with kind permission from the CCS newsletter.

humpback whale fluke, photo: Dave Matila NOAA Fisheries Permit No. 782-1438

How did this special arrangement come about?

I was contracted for this because of the work I've done in the West Indies on the mating and calving populations of humpbacks that eventually culminated in the YONAH (Years of the North Atlantic Humpback) project. The HIHWNMS was interested in two aspects of my work experience: I am specialized in this particular species, especially with regard to mating and calving populations; secondly, I have spent a large portion of my career fostering collaborations among researchers, agencies and other entities, most significantly in the YONAH project and also in the formation of the large whale disentanglement network.

What were the research needs at HIHWNMS that prompted your appointment?

I was brought there to help to more clearly define the sanctuary's research priorities and to articulate those priorities to diverse research communities present in the Hawaiian Islands – both academic and independent. Hawaii has a very rich and longstanding history of studying the humpback whale. Much of the well-known work done with humpback whale mating behavior has been done there. It really is the epicenter for the study of the North Pacific humpback whale, even though there are other grounds in Mexico and Japan.

With all that effort, is there a risk that researchers might duplicate effort?

That does not seem to be happening, but remember, it's not necessarily a bad thing for two researchers to work on the same issue—replicated results help to validate the conclusions of the other research.

What sorts of differences exist between the humpback populations of the North Pacific and the North Atlantic, and between those who study them?

In the Pacific, the make-up of the population is fairly complex. There are those that range from Alaska to Hawaii, another group travels between the Pacific Northwest and Mexico, and even a couple between British Columbia and Japan. The entire North Pacific population of humpbacks is estimated to be about two-thirds as large as the North Atlantic one of about 10,000 individuals.

As opposed to our work in the Gulf of Maine, HIHWNMS did not know whether entanglement is a significant problem among the Pacific humpbacks, as it is here. The main concerns have been about collisions with high-speed vessels and acoustic pollution; the Navy does a lot of experimental underwater work in Hawaii, and has a huge base there.

Of course, the major difference between the study of humpbacks in Hawaii and the Gulf of Maine is that the Hawaiian humpbacks are mating and calving; the Gulf of Maine humpbacks are feeding.

As for the research priorities, there are similarities. For instance, the Studds-Stellwagen Bank National Marine Sanctuary (SSBNMS), which is sort of the Atlantic counterpart to the HIHWNMS, is interested in studies of distribution and abundance trends, behaviors and threats to the species. Both sanctuaries have in place a research plan, which is a component of their overall management plan. But at HIHWNMS, it was my job to help them refine their research plan and to help facilitate projects and collaborations that advance the sanctuary's research goal.

The main issues for baleen whales around the world are entanglement, ship collisions, noise pollution and habitat degradation. In Hawaii there is concern about all of these, even including the run off from coastal development. Although, because the whales are transient (and not feeding) they are not as likely to be a victim of overdevelopment, as say coral reefs and turtles are.

COLLABORATION

Unfortunately, calves are also at further risk of mortality from collisions with vessels because at that very young age, they are forced to the surface for air much more often than adults. Once at the surface, they are on their own and not very visible. In Hawaii, while there is a 100-yard minimum distance (required by regulation) that must be kept once whales are sighted, there are no guidelines as to speed reduction, similar to those that we have here on the east coast.

Did you get the chance to conduct some research of your own?

Yes. My associate Jooke Robbins came out in March, a trip that was funded by the Marine Mammal Commission. Using the HIHWNMS research vessel, we took photos of scars on the tail stock, or caudal peduncle, of selected whales; in our experience, this is the site of most scars resulting from entanglement. We also took biopsy samples from known agonistic or "fighting" males for a stress test that was originally developed to determine if dolphins caught in tuna nets that survived suffered serious stress as a result of their encounter.

Thanks to a National Fish and Wildlife Foundation grant, we will be able to use the scar-based analysis technique we developed in the Gulf of Maine to take a first look at relative rates of entanglement among Pacific humpback whales. And for the first time, we will also be able to compare scar photos of Hawaiian and Atlantic humpback males to see if some scars we have determined are entanglement related in Atlantic whales could actually have occurred as a result of fighting among agonistic males during breeding season in the Caribbean. We have become concerned that physical interactions between males on the breeding ground may produce scarring that may confound entanglement-related scar analyses. But Gulf of Maine observations alone were insufficient to test this hypothesis. The Pacific scar photos will add significantly to our studies of entanglement scarring.

humpback whale breaching, photo: Dave Mattila NOAA Fisheries Permit No. 782-1438

What were your major objectives at HIHWNMS?

As I mentioned, Maui is the epicenter of humpback whale distribution, whale watching and research in Hawaii. There are beautiful protected waters and at least six major humpback research programs in and around the area, including aerial surveys conducted from Oahu.

At the annual meeting of the researchers we determined the following primary objectives: to characterize and monitor the population, including their abundance, demographic distribution, life cycles and behavior; to improve the administration of Sanctuary sponsored research programs; and to enhance the dissemination of that research among fellow-researchers, agencies and to the general public through seminars, workshops, the web and publications. An example of the outreach that's in place right now is the annual "whale count." Hawaiians can observe humpbacks right from the beach. It has an admittedly limited scientific value, but is of tremendous value in terms of public outreach and awareness. Those objectives mean establishing clear and effective guidelines to monitor threats to the population and conduct research aimed at recovery and protection. There is less emphasis on basic research (for instance, how does a whale metabolize vitamins?) as opposed to applied research (why are ship strikes occurring in this one particular area?)

(continued on page 10)

Research conducted by Dave Matilla was authorized under NOAA Fisheries Scientific Research Permit No. 782-1438 (issued to the NOAA Fisheries National Marine Mammal Laboratory) under the authority of the MMPA and Endangered Species Act. (Please visit *www.nmfs.noaa.gov/prot_res/PR1/Permits/pr1permits_types.html* for more information on MMPA/ESA permits.) This process allows for *bona fide* researchers to closely approach a marine mammal in the wild for data collection purposes. Without a permit, these activities could be considered "harassment" and therefore illegal under the MMPA. In addition, there is a 100-yard approach restriction to humpback whales in Hawaiian and Alaskan water (50 CFR 224.103). Without an MMPA/ESA permit, it is illegal to approach these animals closer than 100 yards.

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Was your considerable experience with entanglement helpful to the HIHWNMS?

Absolutely. One of the reasons I was contracted was to help establish a response capability that could address entanglements, dead whales (or "floaters"), and strandings. During my stay, there were two documented deaths of adult humpbacks likely due to entanglements. Both whales were discovered entwined with ropes and nets. There were also two disentanglement responses, although these happened early in the winter, before we had equipment or established response protocols, and so, although they were a productive first start, they did not end in successful disentanglements.

I also conducted advance training for a group of humpback researchers from Alaska, who at present are permitted to disentangle on a case-by-case basis from NOAA Fisheries. I had given them some previous training in 1998, but techniques and materials have improved considerably since then.

NATIONAL MARINE SANCTUARIES

The NOAA Hawaiian Islands Humpback Whale National Marine Sanctuary is one of 13 national marine sanctuaries created under the National Marine Sanctuaries Act of 1972. The sanctuary's goal is to promote comprehensive and coordinated management, research, education and long-term monitoring for the endangered humpback whale and its habitat.

The sanctuary focuses its efforts on a variety of issues, including supporting the work of marine researchers, coordinating and participating in community outreach projects, developing educational displays, and working cooperatively with local organizations, agencies and volunteers to address resource protection and public awareness.

For more information, visit the sanctuary website at: *www.hihwnms.nos.noaa.gov*

NOAA Office for Law Enforcement

Preventing Harassment of Seals and Sea Lions

The MMPA is just one of the dozens of laws enforced by the special agents and enforcement officers of NOAA Fisheries Office for Law Enforcement (OLE). A small agency within NOAA Fisheries, OLE employs roughly 200 personnel scattered over 60 field offices and headquarters to protect and conserve our nation's living marine resources.

Enforcement of the MMPA and its implementing regulations has evolved over the past 30 years. These days, agents and officers in Alaska conduct overflight patrols with the Civil Air Patrol in support of protecting the Cook Inlet Beluga Whales, while agents and officers in Hawaii conduct at-sea boardings and educational workshops in and around the Hawaiian Island Humpback Whale Sanctuary.

One of the growing issues for these agents and officers is human interaction with seals and sea lions. As our coastal cities and towns continue to grow at rapid rates, human interactions with seals and sea lions continue to rise. People enjoying a swim or walking their dog on the beach now have a greater chance of encounterinig one of these animals.

While most people know to leave wild animals alone, such as bears, bison, sharks and other predators, some forget that seals and sea lions are "wild" animals. As the public becomes more aware of the plight of these animals, there have been numerous instances and some investigations into human/pinniped interaction. This past summer was no exception, most notably in the Northeast U.S. where OLE staff received numerous complaints of the public harassing harbor seals on New England beaches.

Although seals and sea lions spend a large amount of their time in the water, they are not strictly aquatic animals. Quite frequently they come ashore to molt, avoid predators, give birth or just to rest.

Seals leave their pups on shore while they forage for food. When the mother returns to her pup she can be scared away by the presence of humans, according to Dana Hartley, biologist with National Marine Fisheries Service's (NOAA Fisheries) Office of Protected Resources, Northeast Regional Office. "Some people believe the pup is abandoned and take it from the beach," said Hartley. These well intentioned but mistaken members of the public usually leave the healthy pups with aquariums that, already caring for animals in true distress, are overburdened by otherwise healthy pups that have now been separated from their mothers.

Human/pinniped interactions also can involve shootings, chasing with boats, feeding, and other harmful activities – all of which constitute "harassment" under the MMPA and require OLE action.

"The two areas of concern that we have are people trying to get too close to the seals, and forcing them back into the water for their safety, and people who think that the seal is hurt or stranded and are just trying to help," said Special Agent Chris Schoppmeyer from NOAA OLE's Northeast Division.

If an animal is perceived to be stranded, it's best to observe it over several hours and then report this action to the nearest NOAA Fisheries authorized stranding network.

"Marine mammal stranding networks are authorized by NOAA Fisheries to respond to seals in need," said Janet Whaley, D.V.M., National Stranding Coordinator for NOAA Fisheries Office of Protected Resources. "Stranding network members have special training and experience for dealing with sick or injured marine mammals. Any attempt by the public to approach the animals can cause harassment of these animals."

During summer 2002, NOAA Fisheries released media advisories, and posted "Do Not Harass or Feed Signs" at docks, beaches and other key locations. OLE agents and officers spoke to various groups about "harassment" concerns, and numerous patrols were conducted to discourage harmful and illegal interactions with seals.

OLE, in partnership with NOAA Fisheries Protected Resources staff, is working to discourage harmful and illegal interactions with all marine mammals and together are seeking to promote safe and responsible marine mammal viewing guidelines.

Special Agent Schoppmeyer posts a NOAA Fisheries' sign warning the public against harassment of seals and sea lions photo: Office for Law Enforcement

ADMIRE FROM A DISTANCE

for your safety... and their protection.

NOAA Fisheries' Marine Mammal Viewing "Code of Conduct"

1. Remain at least 100 yards from whales and 50 yards from dolphins, porpoises, seals and sea lions.
2. Time spent observing individual marine mammals should be limited to 1/2 hour.
3. Marine mammals should not be encircled or trapped between boats, or boats and shore.
4. If approached by a marine mammal, put your engine in neutral and allow the animal to pass.
5. Use extra caution in the vicinity of mothers and young and in other sensitive wildlife habitat such as feeding, nursing or resting areas.
6. Keep dogs leashed and away from seals and sea lions to avoid transfering infectious diseases between the animals. People may also be at risk upon direct contact with an infected animal.
7. Never feed, swim with, pet, touch or elicit a reaction from a marine mammal.

By being aware of the steps for responsible marine mammal viewing you can help reduce the potential for wildlife viewing to inadvertently harm marine mammals or violate Federal law. Bring binoculars along on a viewing excursion to assure a good view from a distance. Together we can ensure marine mammal viewing will be as rewarding as it is today for many generations to come.

For more information, visit the NOAA Fisheries Office of Protected Resources website at:

www.nmfs.noaa.gov/prot_res/MMWatch/MMViewing.html

HARASSMENT

NOAA Fisheries Considering Additional Measures to Protect Marine Mammals from Harassment by Humans

On January 30, 2002, NOAA Fisheries published an Advance Notice of Proposed Rulemaking (ANPR) in the *Federal Register* (67 FR 4379) to address concerns about human interactions with wild marine mammals. The purpose of the ANPR was to request comments from the public on whether NOAA Fisheries should develop additional regulations to protect wild marine mammals from human activities that are directed at the animals and have the potential to cause harassment. The public comment period closed on April 1, 2002 and NOAA Fisheries is currently evaluating more than 500 comments received on the ANPR.

Under the MMPA, it is illegal to "take," the definition of which includes "harass," marine mammals in the wild. NOAA Fisheries has developed policies, guidelines and regulations under the MMPA to protect marine mammals from "take" activities. In recent years, NOAA Fisheries has received letters from the Marine Mammal Commission, scientific research community, environmental groups, the public display industry, and members of the public expressing the view that swimming with and other specific types of interactions with wild marine mammals harass (and therefore "take") the animals by causing, or having the potential to cause, injury or disruption of normal behavior patterns. NOAA Fisheries is specifically concerned about:

1) *"swim-with" activities* whereby people closely approach and interact with marine mammals by entering the water near the animals;
2) *vessel based activities* whereby people closely approach and interact with marine mammals by maneuvering vessels in close proximity to the animals; and
3) *land based activities* whereby people closely approach and interact with marine mammals in their haul-out areas.

"We encourage people to view and enjoy marine mammals in their natural habitat, but in a responsible way. We're becoming increasingly concerned with the number of inappropriate activities and close interactions that may harm the animals and place people at risk," said NOAA Fisheries Assistant Administrator Bill Hogarth in a press release announcing the ANPR. "We're asking for the public's guidance in developing appropriate rules that better protect wild marine mammals, yet still promote responsible marine wildlife viewing on our waters and beaches."

NOAA Fisheries managers are concerned about the increasing number of people attempting to closely approach, swim with, touch or otherwise interact with wild marine mammals. NOAA Fisheries agents and managers have observed or received complaints about people chasing or swimming with wild dolphins and whales, using vessels to make dolphins ride the bow wave or surf the stern wake, throwing objects at seals or sea lions to make them "pose" for pictures, and attempting to pet, touch or feed the animals. These types of activities can disturb and injure marine mammals. Animals that are resting, foraging, caring for young, or using particular habitats for shelter are especially at risk.

The MMPA and NOAA Fisheries' regulations currently provide general prohibitions against harassing or feeding wild marine mammals, and there are specific approach restrictions to humpback whales in Hawaii and Alaska, and North Atlantic right whales in the Northeast. The ANPR attempted to (1) clarify which activities can be disruptive to wild marine mammals, and (2) suggest appropriate solutions for addressing human activities of concern.

The ANPR also outlined NOAA Fisheries' current policy regarding close human interactions which states in part:

"The MMPA does not provide for a permit or other authorization process to view or interact with wild marine mammals, except for specific listed purposes such as scientific research. Therefore, interacting with wild marine mammals should not be attempted, and viewing marine mammals must be conducted in a manner that does not harass the animals. NOAA Fisheries cannot support, condone, approve or authorize activities that involve closely approaching, interacting or attempting to interact with whales, dolphins, porpoises, seals or sea lions in the wild. This includes attempting to swim with, pet, touch, feed or elicit a reaction from the animals. NOAA Fisheries believes that such interactions constitute "harassment" as defined in the MMPA, since they involve acts of pursuit, torment or annoyance that have the potential to injure or disrupt the behavioral patterns of wild marine mammals."

Once the comments received on the ANPR have been fully evaluated, a decision will be made as to whether or not to prepare a Proposed Rule. If so, the Proposed Rule will be published in the *Federal Register* allowing for another public comment period. The full text of the ANPR can be viewed at:
www.nmfs.noaa.gov/prot_res/MMWatch/MMViewing.html

UPDATES

Approach Regulations Finalized to Protect Humpback Whales in Alaska

NOAA Fisheries published a Final Rule to protect humpback whales in Alaskan waters from disturbance by vessels (66 FR 29502- May 31, 2001). The rule went into effect July 2, 2001 and limits the minimum approach distance to whales at 100 yards, requires a "slow, safe speed" when near a whale, and prohibits disruption of a whale's normal behavior or prior activity.

"We worked closely with the public and the whale watching industry to balance protection of the whales with public demand for enjoyable whale watching opportunities," said Jim Balsiger, Alaska Regional Administrator for NOAA Fisheries. "The regulations are designed to protect the whales and to provide an enforcement tool to respond to situations that may threaten this endangered species."

In response to public comment, the minimum approach distance was reduced from the proposed 200 yards to 100 yards. This makes the distance consistent with the 1996 voluntary Marine Mammal Viewing Guidelines and with approach regulations for protecting whales in Hawaiian waters. The voluntary Marine Mammal Viewing Guidelines, that will remain in place as additional guidance for vessel operators, contain more suggested protective measures when around whales and other marine mammals.

For more information, visit the NOAA Fisheries' Alaska Region website at:
www.fakr.noaa.gov/protectedresources/mmviewingguide.html

New Reports Available On-Line

Be sure to check out the NOAA Fisheries Office of Protected Resources webpage. This site contains electronic versions of old and new reports, including the 1999-2000 MMPA Annual Report to Congress, 2002 Stock Assessment Reports, and health/stranding reports detailing unusual mortality events. The site also contains selected ESA consultations, recovery plans and regulatory actions. For more information, visit:
www.nmfs.noaa.gov/prot_res/overview/publicat.html

NOAA Fisheries Co-Sponsors Marine Wildlife Viewing Workshop

In conjunction with the 2002 Watchable Wildlife Conference, held October 15-19 in St. Paul, Minnesota, the NOAA Fisheries Office of Protected Resources and NOAA's Ocean Service's Office of National Marine Sanctuaries co-hosted a wildlife viewing workshop on marine species to discuss issues dealing with observing marine mammals, sea turtles, fish, corals and marine birds in the wild. The workshop provided a current overview of the trends in marine wildlife viewing, identified emerging resource issues impacting marine species, and developed a list of "best practice" guidelines to be used in an educational campaign to promote sustainable marine wildlife viewing. For more information, visit the NOAA Fisheries Office of Protected Resources Responsible Marine Wildlife Viewing website at:
www.nmfs.noaa.gov/prot_res/MMWatch/MMViewing.html

John H. Prescott Marine Mammal Rescue Assistance Grant Program

authorized stranding network participants aid a pod of stranded rough-toothed dolphins photo: Ron Hardy, Gulf World

The Marine Mammal Rescue Assistance Act of 2000 authorized the creation of a competitive grant program to provide funding for eligible stranding network participants. Over 80 projects were proposed in 2002 and 67 of those were recommended to NOAA for funding. The next call for Prescott Grant applications will be published in the *Federal Register* and will be announced on the website below.

For more information on the program, award recipients and application guidelines, please visit:
www.nmfs.noaa.gov/prot_res/PR2/Health_and_Stranding_Response_Program/Prescott.html

COVER STORY

Contributions to MMPA Passage

Success of the passage of the MMPA of 1972 was greatly supported by efforts of not only government officials like Dr. Talbot, but also by countless environmental groups, researchers and concerned citizens. Notable marine mammal scientisits, including Dr. Kenneth Norris, Dr. Carleton Ray, and William Schevill, were instrumental in calling attention to the large scale depletion of marine mammal populations and the need for better wildlife management principles. These scientists testified at Congressional committee hearings, met with key Congressional staff members like Frank Potter of the House Committee on Merchant Marine and Fisheries and provided scientific review of draft legislation. Their efforts supported and reinforced Dr. Talbot's draft MMPA legislation and were instrumental in its passage. Dr. Norris, Dr. Ray and Mr. Schevill became members of the first Committee of Scientific Advisors as part of the newly formed Marine Mammal Commission (MMC). In addition, John Twiss, Jr., a respected marine conservationist and educator, served as the first Executive Director of the MMC from 1974-2000. The contributions of these scientists and leaders illustrate how government and private citizens can work together and create precedent setting change.

References
Silber, G. K. 1998. Remembering Dr. Kenneth Norris. MMPA Bulletin 13:4-5.
Norris, K. S. 1991. Dolphin Days: The Life and Times of the Spinner Dolphin. W.W Norton and Company, NY, NY. 93 pp.

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was revised and forwarded to the House Committee on Merchant Marine and Fisheries Committee, Subcommittee of Fisheries and Wildlife Conservation for consideration.

Dr. Talbot was aware that OMB passed a revised bill that did not include some principles he considered important. He also recognized the need for bipartisan support on marine mammal protection legislation. To address the bipartisan issue, Dr. Talbot met with his colleague on resource issues, Frank Potter, Administration Aid to the House Committee on Merchant Marine and Fisheries. Shortly afterwards, the House Committee Chair, John Dingell proposed his own version of marine mammal protection legislation that largely contained the management principles in Dr. Talbot's draft. This new bill (HR 10420) included the primary objectives to create a new style of living marine resource management and, very importantly, had bipartisan support.

HR 10420 easily passed the House and was referred to the Senate Committee on Commerce, Subcommittee on Oceans and Atmosphere. The Senate Subcommittee considered the House bill, in addition to numerous other bills, and ultimately passed a slightly amended version (S2871) of HR 10420. The full Senate easily passed S2871 and, as required in the legislative process, the two bills (HR 10420 and S2871) were referred to the House Committee on Conference for reconciliation. This Committee, comprised of members of the House and Senate, considered both bills and ultimately agreed on the final legislation. On October 2, 1972, the MMPA (Public Law 92-522) was passed through the Committee on Conference and eventually Congress. It was enacted by President Nixon on December 21, 1972 and later highlighted as a milestone in Nixon's January 1973 State of the Union Address. The passage of the MMPA represented the true spirit of public policy making, with the involvement of many diverse political and interest groups.

Today, 30 years have passed since enactment of the MMPA. In that time, there have been many successes. Large whales species have been given greater protection. The Eastern Pacific gray whale (*Eschrichtius robustus*) was even removed from the Endangered Species list in 1993. Dolphin mortality in the Eastern Tropical Pacific tuna purse seine industry has dropped dramatically from over 260,000 animals in 1971 to 1,636 animals in 2000. New programs have been instituted, such as Stock Assessments, Health and Stranding Response, and Permitting for Scientific Research. A network of Federal agencies, researchers and the public have been working together to use the best available science to manage our nation's marine mammals. However, many would agree that more work needs to be done. Fortunately, there are many interest groups that continue to provide input on administration of the MMPA and the law has undergone

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COVER STORY

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several reauthorizations and amendments. Although the pendulum between the various interests continues to swing, the end result reflects the intended balance and many marine mammal populations once in danger are now thriving.

Note: Information for this article was gathered from Congressional records and an interview with Dr. Lee Talbot.

Dr. Talbot is presently a professor with the Graduate Department of Environmental Science and Policy at George Mason University in Fairfax, Virginia. Dr. Talbot also serves as President of Lee Talbot Associates International and advises on environmental and development issues worldwide. Dr. Talbot's 45 years of professional experience in 128 countries has included positions as Advisor to the World Bank, the Asian and Inter-American Development Banks, U.N. bodies, governments and universities. Formerly Director-General of the World Conservation Union (IUCN), he also held the position of environmental advisor to three U.S. Presidents, and was head of environmental sciences at the Smithsonian Institution. The first Staff Ecologist of the IUCN, Dr. Talbot and his biologist wife, Marty Talbot, spent over six years conducting pioneering ecological research on the Serengeti-Mara Plains of East Africa. He has served on over 20 committees and panels of the National Academy of Sciences, authored over 250 publications, and has received the Distinguished Service Award of the American Institute of Biological Sciences.

Split Jurisdiction Between Federal Agencies

NOAA Fisheries

whales, dolphins, porpoises, seals and sea lions

Fish and Wildlife Service

walrus, sea otters, polar bears and manatees

During passage of the MMPA, Congress debated whether the Department of Commerce (DOC) or the Department of Interior (DOI) should administer the new law and maintain jurisdiction over marine mammals. Some felt the newly created National Oceanic and Atmospheric Administration (NOAA) under DOC should adminster the MMPA. Others felt marine mammal management should fall under DOI.

Ultimately, Congress decided to split MMPA jurisdiction by placing some species with DOC (whales, dolphins, porpoises, seals and sea lions) through NOAA's Fisheries Service and others with DOI (walrus, polar bears, sea otters and manatees) through the U.S. Fish and Wildlife Service.

History of the National Marine Fisheries Service (NOAA Fisheries)

1871 Office of Commissioner of Fish and Fisheries created

1903 Office moved to Department of Commerce and Labor and re-named Bureau of Fisheries

1913 Department of Commerce and Labor splits and Commerce (DOC) retained Bureau of Fisheries

1939 Reorganization Plan No. II Bureau of Fisheries transferred to Department of Interior (DOI)

1940 Reorganization Plan No. III Bureau of Fisheries moved within DOI to Fish and Wildlife Service

1956 name changed to Bureau of Commercial Fisheries

1970 Reorganization Plan No. IV Bureau of Commercial Fisheries moved back to DOC and placed under NOAA. Bureau renamed National Marine Fisheries Service (NOAA Fisheries)

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